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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,955	12/05/2001	Kenneth W. Junk	06005/37295	3668

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EXAMINER

RAYMOND, EDWARD

ART UNIT PAPER NUMBER

2857

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/006,955

Applicant(s)

JUNK, KENNETH W.

Examiner

Edward Raymond

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-- Th MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,10,23,24 and 37 is/are rejected.
- 7) ☒ Claim(s) 2,4-9,11-22,25-36,38-49 and 51-55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 10, 23, 24, and 37** are rejected under 35 U.S.C. 102(b) as being anticipated by Grumstrup et al.

Grumstrup et al. teaches a method of determining the existence of an instability within a process control loop (Claims 1, 10, 23, and 37: see col. 6, lines 10-14) comprising the steps of measuring one or more signals within the process control loop when the process control loop is connected on-line within a process control environment (Claims 1, 10, 23, and 37: see col. 4, lines 62-65); storing the one or more measured signals as signal data (Claims 1, 10, 23, and 37: see col. 6, lines 60-67); and performing an analysis on the stored signal data to determine the existence of an instability within the process control loop (Claims 1, 10, 23, and 37: see col. 7, lines 4-16).

Grumstrup et al. teach a system further including a second sensor that measures a second signal within a process control loop when the process control loop is connected on-line within the process environment (Claim 24: see Pressure Sensor 36 and Position 19: The Examiner notes a first and a second sensor that is connected on-line within the process environment) and wherein the memory stores the measured

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second signal as secondary signal data (Claim 24: see col. 6, lines 60-67) and the processor is adapted to perform the analysis on the stored signal data and the stored secondary signal data to determine the source of the instability (Claim 24: see Figure 2 and also col. 7, lines 4-16).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 3 and 50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Grumstrup et al. in view of Owen.

Grumstrup et al. teach all of the features of the claimed invention, except a method wherein the step of performing an analysis includes the step of performing a Fourier transform on the one or more signals and detecting changes in the spectrum of the one or more signals to determine the existence of an instability. Owen teaches a method wherein the step of performing an analysis includes the step of performing a Fourier transform on the one or more signals and detecting changes in the spectrum of the one or more signals to determine the existence of an instability (Claims 3 and 50: see col. 9, lines 37-40). It would have been obvious to the person having ordinary skill in the art at the time the invention was made to modify Grumstrup et al. to teach using the Fourier transform, as taught by Owen, because this would provide greater precision in assessing the performance of a control loop.

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***Allowable Subject Matter***

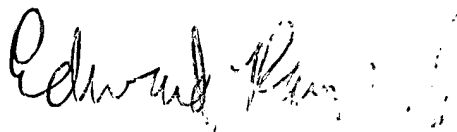
5. **Claims 2, 4-9, 11-22, 25-36, 38-49, and 51-55** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Raymond whose telephone number is 703-308-6235. The examiner can normally be reached on Monday through alternating Friday between 8:00 AM and 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-4447 for regular communications and 703-308-0956 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



August 22, 2003  
Edward Raymond  
Patent Examiner  
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